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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,892	07/28/2003	Cheng-Geng Jan	10112541	7422
34283	7590	10/05/2004	EXAMINER	
QUINTERO LAW OFFICE 1617 BROADWAY, 3RD FLOOR SANTA MONICA, CA 90404			TRAN, CHUC	
			ART UNIT	PAPER NUMBER
			2821	

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/628,892	JAN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Chuc D Tran	2821	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10, 12-21 and 23 is/are rejected.
- 7) ☒ Claim(s) 9, 11, 22 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>7/28/03</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-8 and 12-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Desclos et al (USP. 6,160,512).

Regarding claim 1, Desclose et al disclose a complex antenna apparatus comprising:

- a base (14) having a central through hole (Fig. 4);
- a circular polarization antenna (12) disposed on the base (14) (Fig. 3) (Col. 4, Line 16) and having a hollow feeding portion (17) corresponding to the central through hole (Fig. 7); and
- a capacitance cylinder loading monopole antenna (43) disposed in the central through hole of the base (14) via the hollow feeding portion (17) of the circular polarization antenna (12) (Col. 5, Line 6) (Fig. 4 & 7 & 11).

Regarding claim 2, Desclos et al disclose that the capacitance cylinder loading monopole antenna further comprises a monopole linear antenna (41) and a conductive element (42) covering the monopole linear antenna (Fig. 11) (Col. 5, Line 5).

Regarding claim 3, Desclose et al disclose that the capacitance cylinder loading monopole antenna comprises a dielectric (air space) disposed between the conductive element (42) and monopole linear antenna (41) (Fig. 11).

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Regarding claim 4, Desclose et al disclose that the base further comprises a Ground (23) (Fig. 8) formed thereunder (Col. 4, Line 50).

Regarding claims 5 and 18, Desclos et al disclose that the circular polarization antenna (49) is circular (Fig. 12).

Regarding claim 6, Desclos et al disclose that the circular polarization antenna (12) is a rectangular (Fig. 7).

Regarding claim 7, Desclos et al disclose that an RF module (15 & 18) (Fig. 4) connected to the circular polarization antenna (12) (Col. 4, Line 11) and capacitance cylinder loading monopole antenna (Fig. 4).

Regarding claim 8, Desclos et al disclose that a through hole (Fig. 4), the circular polarization antenna and capacitance cylinder loading monopole antenna connected to the RF module (15 & 18) via the through hole and central through hole of the base (Fig. 4).

Regarding claims 12 & 13, Desclose et al disclose a complex antenna apparatus comprising:

- a base (14) having a central through hole (Fig. 4);
- a circular polarization antenna (12) disposed on the base (14) (Fig. 3) (Col. 4, Line 16) and having a hollow feeding portion (17) corresponding to the central through hole (Fig. 7); and
- a linear antenna (11) disposed in the central through hole of the base via the hollow feeding portion (17) of the circular polarization antenna (12) (Fig. 7).

Regarding claim 14, Desclos et al disclose that the linear antenna is a capacitance cylinder loading monopole antenna (Fig. 11).

Regarding claim 15, Desclos et al disclose that the capacitance cylinder loading

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monopole antenna further comprises a monopole linear antenna (41) and a conductive element (42) covering the monopole linear antenna (Fig. 11) (Col. 5, Line 5).

Regarding claim 16, Desclose et al disclose that the capacitance cylinder loading monopole antenna comprises a dielectric (air space) disposed between the conductive element (42) and monopole linear antenna (41) (Fig. 11).

Regarding claim 17, Desclose et al disclose that the base further comprises a Ground (23) (Fig. 8) formed thereunder (Col. 4, Line 50).

Regarding claim 19, Desclos et al disclose that the circular polarization antenna (12) is a rectangular (Fig. 7).

Regarding claim 20, Desclos et al disclose that an RF module (15 & 18) (Fig. 4) connected to the circular polarization antenna (12) (Col. 4, Line 11) and linear antenna (Fig. 4).

Regarding claim 21, Desclos et al disclose that a through hole (Fig. 4), the circular polarization antenna and linear antenna connected to the RF module (15 & 18) via the through hole and central through hole of the base (Fig. 4).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 10 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Desclos et al.

Regarding claims 10 and 23, Desclos et al disclose the complex antenna apparatus

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set forth in the claims except the base is made by ceramic. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the base of antenna is made by dielectric material or ceramic for insulating between the circular polarization antenna and the ground in order to provide the complete matching performance and the gain of the circular polarization antenna. It matter of obvious of design choice. (See Col. 4, Line 58 & 66) (Fig. 10).

***Allowable Subject Matter***

5. Claims 9, 11, 22 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter:

The reference of the prior art of record fails to teach or suggest the demodulator connected to the RF module and the dielectric disposed between the conductive element and monopole linear antenna is Teflon.

***Citation of relevant prior art***

Prior art Petropoulos (US 2004/0017327) disclose dual polarized integrated antenna.

Prior art Noro (USP. 6,538,611) disclose antenna apparatus.

Prior art Edvardsson et al (USP. 6,334,048) disclose antenna system.

Prior art Suguro et al (USP. 6,150,984) disclose share antenna and portable radio device using the same.

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Prior art Nybeck et al (USP. 6,320,549) disclose compact dual mode integrated antenna.

Prior art Rossman et al (US 2003/0210193) disclose low profile two antenna assembly.


***Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuc D Tran whose telephone number is (571) 272-1829. The examiner can normally be reached on M-F Flex hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TC  
Sept 23, 2004

  
Don Wong  
Supervisory Patent Examiner  
Technology Center 2800